# Karan Gurazada

# **Education**

#### Leigh High School, San Jose, CA - Class of 2021

- Cumulative GPA Unweighted 3.825, Weighted 4.425
- Class Rank: 1 of 449

# Stanford Online High School, Redwood City, CA - Class of 2021

- Cumulative GPA Unweighted 3.8222
- Take advanced courses not available at Leigh High School: Data Structures and Algorithms, Differential Equations, Linear Algebra, Multivariable Calculus, Modern Physics, Light and Heat

#### **Standardized Tests**

- SAT 1570/1600
- SAT Subject Test Math Level 2 800/800
- SAT Subject Test Chemistry 800/800
- 2019 National AP Scholar
- 2019 and 2018 AP Scholar with Distinction
- AP Computer Science A 5/5
- AP Calculus BC 5/5
- AP Calculus AB 5/5
- AP Physics 1 5/5
- AP Chemistry 5/5
- AP Biology 5/5
- AP Macroeconomics 5/5
- AP United States History 5/5
- AP World History 5/5

## **Awards**

- AIME Qualifier 2020 (American Invitational Mathematics Exam)
- USA Physics Olympiad (USAPhO) Qualifier 2020
- USA Computing Olympiad (USACO) Silver Level 2018
- USA National Chemistry Olympiad (USNCO) National Qualifier 2020
- National Academic Quiz Tournaments (NAQT) Rising Star Sophomore 2019

# **Programming Experience**

- GitHub repository: <a href="https://github.com/kgurazad/">https://github.com/kgurazad/</a>
- Languages: Java, Python, node.js, JavaScript, CoffeeScript, C++, Elixir, Shell
- Systems: Linux systems design
- Databases: SQL, MongoDB

#### QuizBug 2

- Website: http://quizbug2.herokuapp.com/
- Project: <a href="https://github.com/kgurazad/quizbug2">https://github.com/kgurazad/quizbug2</a>

- A question reader application that quizbowlers use to self-study or just to have fun. Users
  can specify criteria such as difficulty and subject area to change the questions that the
  app brings up; the app has over 80,000 unique questions in its database.
- The app had nearly 500 unique users over the past month, and over 150 unique users over the past week.
- Stack: Heroku, jQuery, node.js, express, mongoose, MongoDB, CoffeeScript

#### **Buzzinga**

- Project: <a href="https://github.com/kgurazad/buzzinga">https://github.com/kgurazad/buzzinga</a>
- A computer app that simulates a buzzer on the local network; players can connect to the computer's local IP on their phone and a page simulating a buzzer will be displayed. The app is intended to serve as a buzzer system replacement for low-income schools that cannot afford one.
- Stack: node.js, Electron

#### Ising

- Project: <a href="https://github.com/kgurazad/ising">https://github.com/kgurazad/ising</a>
- A graphical simulation of the Ising model for ferromagnetism. The simulation uses a
  Metropolis algorithm, which uses a Boltzmann factor to calculate the probability of each
  dipole flipping and advances the system by discrete time amounts.
- Stack: Java, Swing

# **Extracurricular Activities**

## **Teaching and Volunteering**

- Tutored middle schoolers in Java coding at Union Middle School, 2018-2019
- Peer tutor students in math and science as part of Leigh High's NHS chapter
- Volunteer for the Quizbowl community by staffing and moderating at middle school, high school, and college quizbowl tournaments throughout Northern California

#### Academic Quizbowl

- Club President and Founder, Stanford Online High School guizbowl Club
- Team Captain and Top Scorer
- Represented California at the 2018 and 2019 National All-Star Academic Tournament; Top scorer of the entire tournament in the prelims of the 2019 NASAT.
- Writer and Editor of science questions for high school tournaments.

#### **Science Bowl**

- Team Co-Captain and Top Scorer, Stanford Online Science Bowl Club
- 3rd place team at the 2020 SLAC Science Bowl Regional Competition

#### **School Clubs**

- Stanford Online High School Quizbowl Club President
  - o Awarded "Club Leader with Distinction" 2019, 2020
- Leigh High School Cybersecurity Club Co-President
- Leigh High School Coding Club Co-President